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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,290	06/30/2005	Richard D Raines	2003UR006	1209
34477	7590	03/23/2006	EXAMINER	
EXXONMOBIL UPSTREAM RESEARCH COMPANY			OLSON, LARS A	
P.O. BOX 2189			ART UNIT	
HOUSTON, TX 77252-2189			PAPER NUMBER	
			3617	

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/541,290

Applicant(s)

RAINES, RICHARD D

Examiner

Lars A. Olson

Art Unit

3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 15-25 and 28-30 is/are rejected.
- 7) ☒ Claim(s) 13, 14, 26 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>06302005</u> .  | 6) <input type="checkbox"/> Other: ____                                     |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12, 15-25, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hogervorst (US 4,318,641) in view of Deike (US 3,969,853).

Hogervorst discloses a pile anchor, as shown in Figures 1-9, that is comprised of an elongated hollow tubular member, defined as Part #2, having an upper end, defined as Part #3, and open lower end, defined as Part #5, and a longitudinal axis, as shown in Figure 1, a two-way flow valve, defined as Part #17 or 18, that is located on said elongated hollow member, and a load transfer device, defined as Part #23, for connecting an anchor line, defined as Part #24, to the outer circumference of said elongated hollow member.

Hogervorst also discloses a method of anchoring a pile anchor into the sea floor, as shown in Figures 1-9, that is comprised of the step of installing a pile anchor as described above into the floor of a body of water, as shown in Figures 3-6.

Hogervorst also discloses a method of producing offshore hydrocarbon resources, as shown in Figures 1-9, that is comprised of the steps of anchoring an offshore structure to the seabed through use of a pile anchor system as described

above, as shown in Figures 3-6, connecting said load transfer device to an offshore structure, as shown in Figure 8, and producing hydrocarbon resources, as shown in Figure 8.

Hogervorst, as set forth above, discloses all of the features claimed except for the use of first and second longitudinally disposed vanes that extend outwardly from an outer surface of an elongated hollow member of a pile anchor.

Deike discloses a torque fin anchor, as shown in Figures 1-10, that is comprised of an elongated hollow tubular member, defined as Part #31, and a plurality of longitudinally disposed vanes or fins, defined as Part #18, that extend outwardly from an outer surface of said elongated hollow member, as shown in Figures 8-10.

The specific placement locations, orientations and sizes of vanes or fins on an elongated hollow member of a pile anchor would be considered by one of ordinary skill in the art to be a design choice based upon the vane configuration that provides optimal ground penetration for said pile anchor.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a plurality of longitudinally disposed vanes on an anchor, as taught by Deike, in combination with the pile anchor and methods as disclosed by Hogervorst for the purpose of providing a pile anchor with increased stability when embedded into the ground of a sea floor.

3. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hogervorst in view of Deike, and further in view of Auraen (US 5,033,908).

Hogervorst in combination with the teachings of Deike shows all of the features claimed except for the use of the method steps of positioning a pile anchor at an inclined angle, and inserting said pile anchor into a sea floor while maintaining said inclined angle.

Auraen discloses a method for installing a pile anchor, as shown in Figures 1a-11, said method including the steps of positioning a pile anchor, defined as Part #4, at an inclined angle with respect to a sea floor, defined as Part #5, as shown in Figure 5, where the top of said pile anchor is inclined in a direction away from a direction of lateral loading, and inserting said pile anchor at least partially into said sea floor while maintaining said inclined angle, as shown in Figure 11.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize method steps for installing a pile anchor at an inclined angle, as taught by Auraen, in combination with the method for installing a pile anchor as disclosed by Hogervorst and the teachings of Deike for the purpose of providing a method for installing a pile anchor more efficiently and securely into a sea floor.

***Allowable Subject Matter***

4. Claims 13, 14, 26 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


**Conclusion**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bergeron (US 6,685,396) discloses a method and apparatus for a suction anchor. Westra et al. (US 4,432,671) discloses a suction anchor and method for installing said suction anchor. Haynes (US 4,257,721) discloses a system for placing piles into a sea floor. Brasted (US 3,805,534) discloses a platform pile anchor. Smith (US 3,621,805) discloses an embedment anchor with fluke plates. Mott et al. (US 3,411,473) discloses a deep water pile anchor. Robinson (US 3,036,542) discloses an embedment anchor with a plurality of longitudinally disposed vanes.
6. Any inquiry concerning this communication from the examiner should be directed to Exr. Lars Olson whose telephone number is (571) 272-6685.

lo

March 20, 2006

LARS A. OLSON  
PRIMARY EXAMINER

  
3/20/06